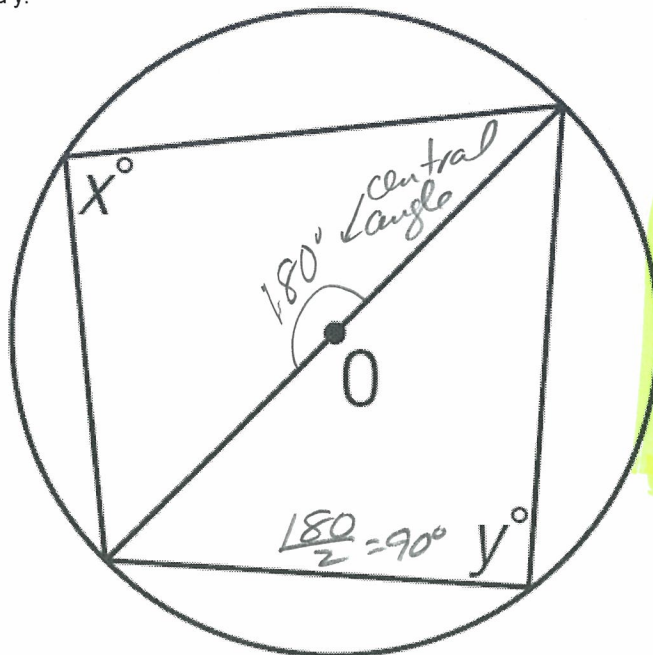


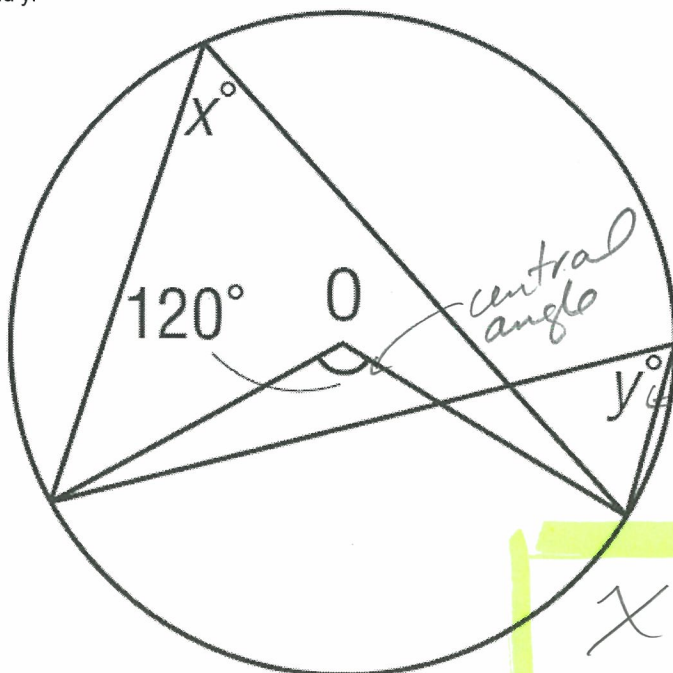
Find angle x and y.



X and y are both 90°

Circle Camp Question #1

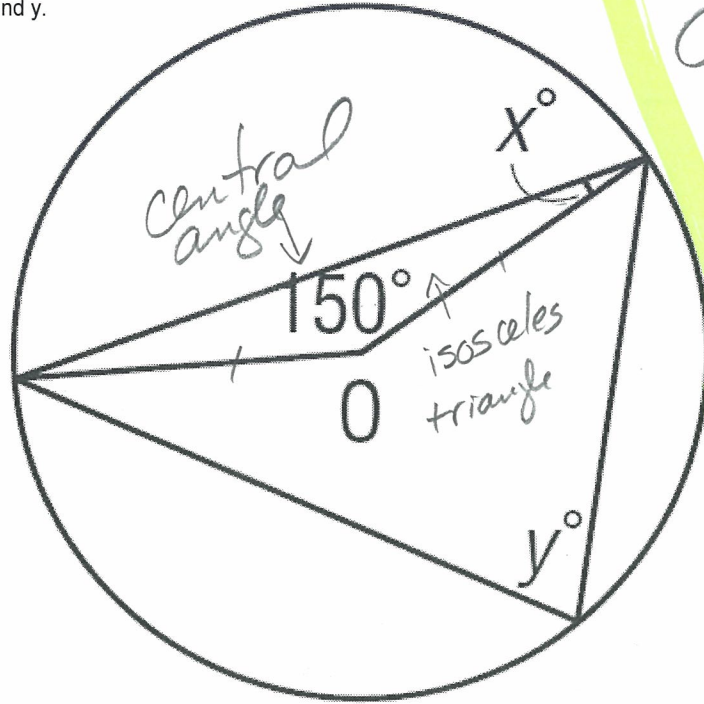
Find angle x and y.



X and y are both $\frac{120}{2} = 60^\circ$

Circle Camp Question #2

Find angle x and y.

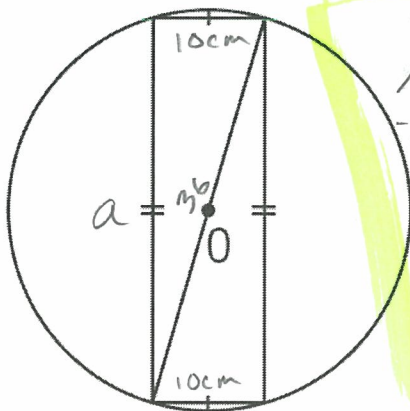


$$y = \frac{150}{2} = 75^\circ$$

$$x = \frac{180 - 150}{2} = 15^\circ$$

Circle Camp Question #3

A rectangle is inscribed in a circle, centre O and diameter 36.0 cm. A shorter side of the rectangle is 10.0 cm long. What is the length of a longer side? How do you know?



$$10^2 + a^2 = 36^2$$

$$100 + a^2 = 1296$$

$$\begin{array}{r} -100 \\ \hline \end{array}$$

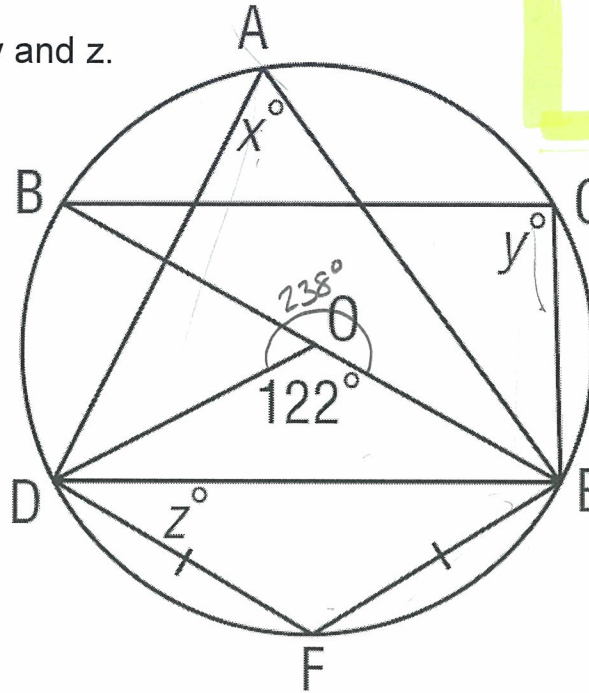
$$\sqrt{a^2} = \sqrt{1196}$$

$$a = 34.6 \text{ cm}$$

Circle Camp Question #4

Brain Buster.

Find angle x, y and z.



$$x = \frac{122}{2} = 61^\circ$$

$$y = \frac{180}{2} = 90^\circ$$

$$\angle DFE = 180 - 61 = 119^\circ$$

$$z = \frac{180 - 119}{2} = 30.5^\circ$$

OR

$$\angle DFE = \frac{238}{2} = 119^\circ$$

Circle Camp Question #5

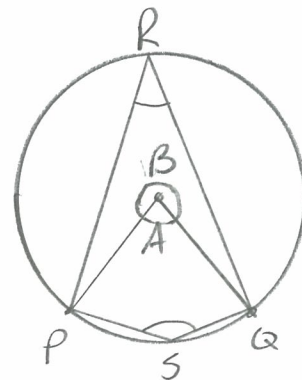
- a) Construct a circle and mark points P and Q to form major and minor arcs PQ.
- b) Construct inscribed $\angle PRQ$ subtended by minor arc PQ.
- c) Construct inscribed $\angle PSQ$ subtended by major arc PQ.
- d) How are $\angle PRQ$ and $\angle PSQ$ related? Justify your answer.

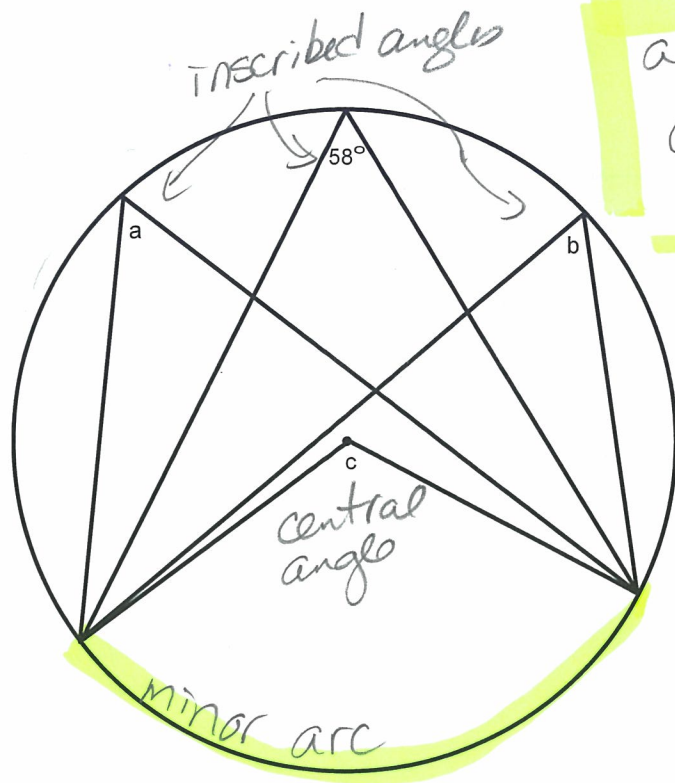
Here's why: $\angle PRQ = \frac{1}{2}$ central angle A
 $\angle PSQ = \frac{1}{2}$ central angle B

Central angles A & B must add to 360° ,
 $\therefore \angle PRQ$ and $\angle PSQ$ must be $\frac{360}{2} = 180^\circ$

Circle Camp Question #6

$$\angle PSQ + \angle PRQ = 180^\circ$$



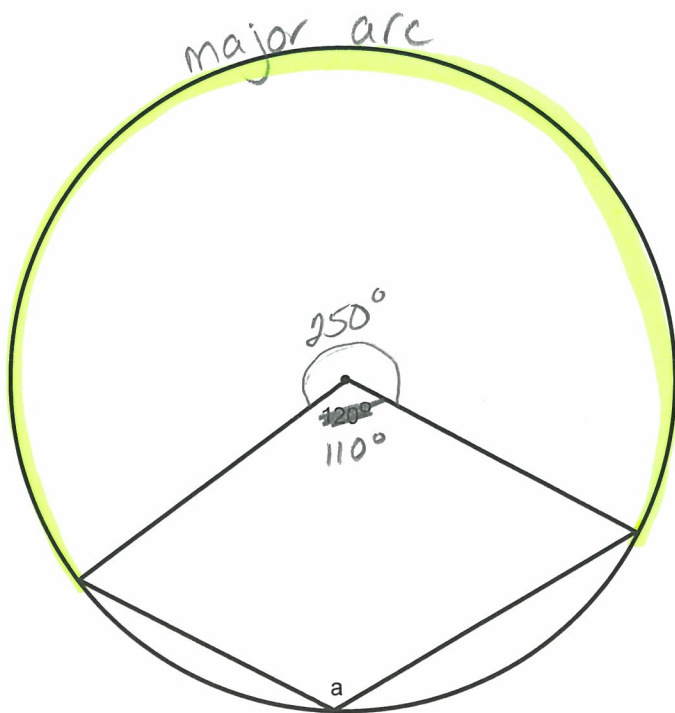


$$a = b = 58^\circ$$

$$c = 2(58) = 116^\circ$$

Circle Camp Question #7

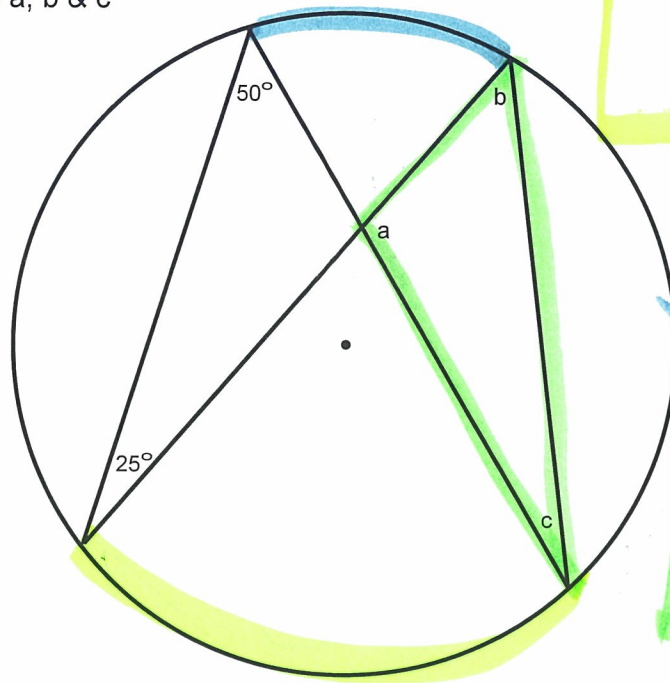
Find angle a.



$$a = \frac{250}{2} = 125^\circ$$

Circle Camp Question #8

Find angles a, b & c



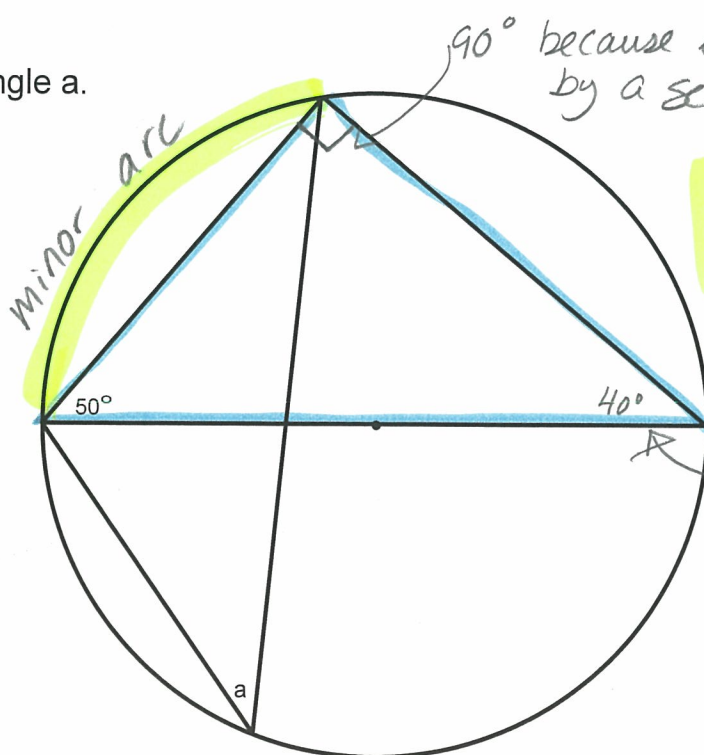
$$b = 50^\circ$$

$$c = 25^\circ$$

$$a = 180 - 50 - 25 = 105^\circ$$

Circle Camp Question #9

Find angle a.

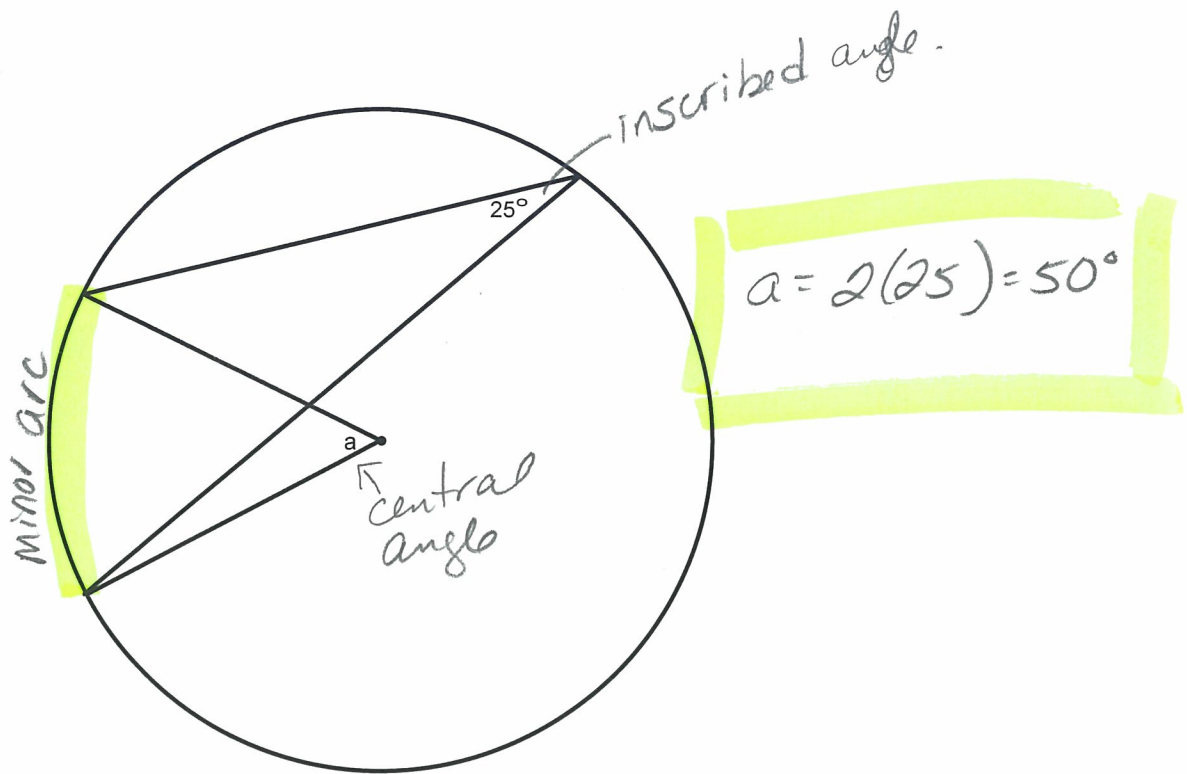


$$a = 40^\circ$$

Blue triangle
 $180 - 50 - 90 = 40^\circ$

Circle Camp Question #10

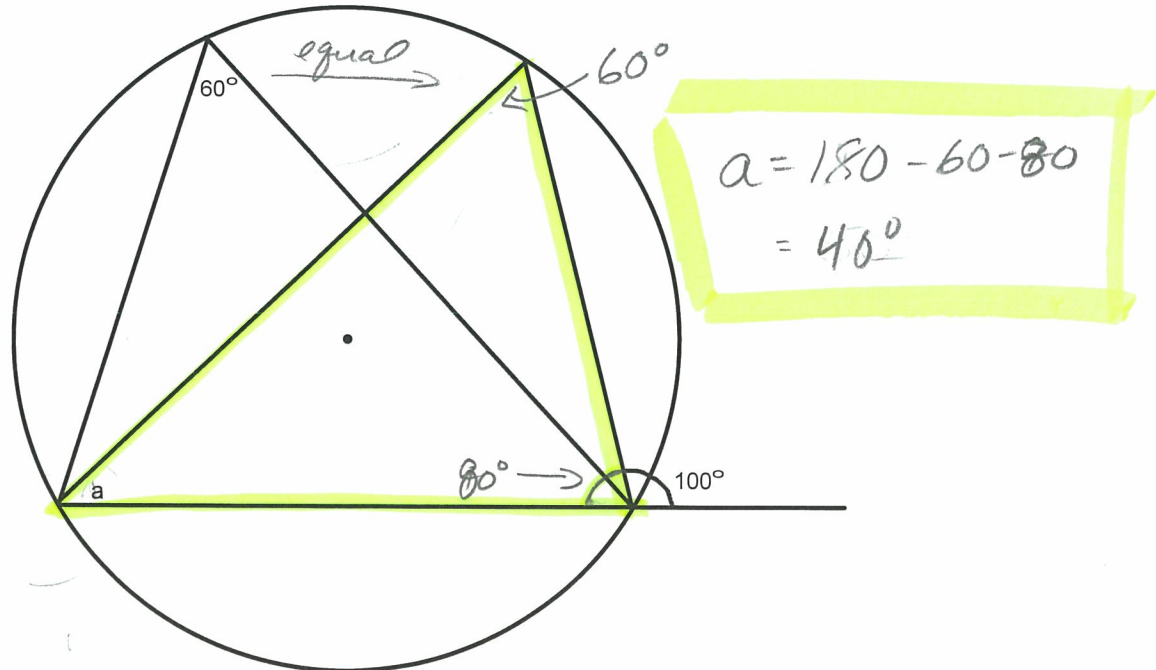
Find angle a.



Circle Camp Question #11

Brain Buster.

Find angle a.



Circle Camp Question #12